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March 26, 1997

*Ex Parte*

Mr. William F. Caton  
Acting Secretary  
Federal Communications Commission  
1919 M Street, N.W., Room 222  
Washington, D.C. 20554

MAR 26 1997

*Re: GN Docket 96-228, Amendment of the Commission's Rules to Establish Part 27,  
the Wireless Communications Service (WCS)*

Dear Mr. Caton:

This notice of an oral *ex parte* presentation in the above-referenced proceeding is provided for inclusion in the public record in accordance with the Commission's *ex parte* rules.

Yesterday, Bob Saunders, Director - Wireless Planning, BellSouth Entertainment and the undersigned met separately with Rudy Baca, Legal Advisor - Office of Commissioner Quello; David Siddall, Legal Advisor - Office of Commissioner Ness; Jonathan Cohen, Associate Bureau Chief - Wireless Telecommunications Bureau, Matthew Moses, Attorney, Auctions Division - Wireless Telecommunications Bureau, Tom Stanley, Chief Engineer - Wireless Telecommunications Bureau, Kathleen Ham, Chief, Auctions Division - Wireless Telecommunications Bureau, Charles Iseman, Chief, Spectrum Policy Branch - Office of Engineering and Technology and Tom Mooring, Electrical Engineer - Office of Engineering and Technology; Keith Larson, Assistant Chief, Engineering - Mass Media Bureau; Suzanne Toller, Legal Advisor - Office of Commissioner Chong; Julius Genachowski, Chief Counsel - Office of the Chairman to discuss BellSouth's reply to the Wireless Cable Association's Petition for Expedited Reconsideration.

Attached for inclusion in the record of this proceeding is a copy of BellSouth's reply, which was filed on Tuesday, March 25th and distributed at the meetings listed above.

No. of Copies made  
List Attached

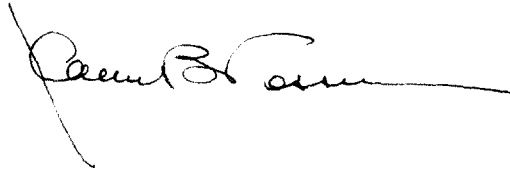
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March 26, 1997

This notice is being filed on March 26th due to the fact that the meetings did not end until after 6:00 p.m. on Tuesday, March 25th.

Please direct any questions regarding this matter to the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read "Rudy Baca", with a long horizontal flourish extending to the right.

Attachment

cc: Rudy Baca  
Jonathan Cohen  
Julius Genachowski  
Kathleen Ham  
Charles Iseman  
Keith Larson  
Tom Mooring  
Matthew Moses  
David Siddall  
Tom Stanley  
Suzanne Toller

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Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, D.C. 20554

In the Matter of

Amendment of the Commission's Rules to  
Establish Part 27, the Wireless  
Communications Service ("WCS")

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GN Docket No. 96-228

**REPLY OF BELL SOUTH CORPORATION AND  
BELL SOUTH WIRELESS CABLE, INC.**

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March 25, 1997

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## EXECUTIVE SUMMARY

BellSouth Corporation and its subsidiary BellSouth Wireless Cable, Inc. (collectively referred to herein as "BellSouth") urge the Commission to adopt a 20 watt power limitation on Wireless Communications Service ("WCS") licensees to avoid blanketing interference to MDS and ITFS facilities, except where the WCS license holder obtains an interference consent agreement from the affected MDS and ITFS license holders. To facilitate negotiations between WCS and MDS/ITFS licensees, BellSouth further requests that the Commission require WCS licensees to provide potentially affected MDS and ITFS licensees with no less than sixty (60) days advance written notice of where WCS towers will be located and the power requirements of their proposed services.

As already demonstrated by BellSouth in *ex parte* submissions to the Commission, and as further demonstrated in the Petition for Expedited Reconsideration filed by The Wireless Cable Association International, Inc. (the "WCA Petition"), the Commission's decision not to adopt a 20 watt WCS power limit is grounded in incorrect assumptions about wireless cable technology, particularly as to the effect of the industry's transition to digital operation. Furthermore, the Commission's decision to resolve harmful WCS interference after such interference has occurred will put wireless cable systems at risk of losing subscribers and will substantially disrupt the distance learning operations of ITFS licensees. As reflected in the substantial support the WCA Petition has received from the wireless cable industry and ITFS licensees, neither result serves the public interest.

Furthermore, the sole opposition to the WCA Petition, filed by Metricom, Inc. ("Metricom"), is suspect in motive and otherwise meritless. Putting aside the fact that Metricom is a provider of wireless Internet access service (and thus stands to gain significantly if wireless cable operators providing the same service suffer harmful WCS interference), Metricom's opposition is bereft of any factual support and reflects a thorough misunderstanding of the Commission's rules and the technical matters at issue here. Simply put, every legal, technical and public interest consideration dictates that the Commission adopt a 20 watt power limitation for WCS unless the WCS licensee obtains an interference consent agreement from affected MDS/ITFS licensees.

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Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, D.C. 20554

In the Matter of	)	
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	)	
Amendment of the Commission's Rules to	)	GN Docket No. 96-228
Establish Part 27, the Wireless	)	
Communications Service ("WCS")	)	

**REPLY OF BELL SOUTH CORPORATION AND  
BELL SOUTH WIRELESS CABLE, INC.**

BellSouth Corporation and its subsidiary BellSouth Wireless Cable, Inc. (hereinafter referred to collectively as "BellSouth"), by its attorneys and pursuant to the Commission's *Public Notice* released in the above-captioned proceeding on March 13, 1997,<sup>1</sup> hereby files its Reply with respect to (1) the "Opposition to Petition for Reconsideration" filed by Metricom, Inc. ("Metricom") and (2) the comments filed by CAI Wireless, Inc. and various ITFS licensees in support of The Wireless Cable Association International, Inc.'s Petition for Expedited Reconsideration (the "WCA Petition"). For the reasons set forth below and in the WCA Petition, BellSouth requests that the Commission impose a 20 watt EIRP power limitation on Wireless Communications Service ("WCS") licensees to avoid blanketing interference to MDS and ITFS

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<sup>1</sup> 62 Fed. Reg. 12959 (Mar. 19, 1997).

facilities, unless the WCS license holder obtains an interference consent agreement from the affected MDS and ITFS license holders.<sup>2/</sup>

## I. INTRODUCTION.

BellSouth has made a substantial commitment to provide digital wireless cable service in several major markets throughout the southeastern United States. Specifically, BellSouth has entered into or completed agreements to acquire MDS and ITFS channel rights covering over 3 million line-of-site homes in and around the New Orleans, Atlanta and Miami markets, and intends to introduce digital wireless cable service in each of those areas in the near future. Also, BellSouth recently announced that it has signed a definitive agreement to acquire wireless cable operations and assets in up to nine markets from American Telecasting Inc., which will allow BellSouth to provide digital wireless cable service in significant new areas in Florida and Kentucky. Because interference-free operation of MDS and ITFS channels is essential for the successful introduction of digital wireless cable service and the enhancement of local ITFS operations, BellSouth has a vital interest in the Commission's WCS rules to the extent that they fail to protect current MDS and ITFS licensees from interference caused by WCS licensees operating in the 2.3 GHz band. ■

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<sup>2/</sup> To avoid unnecessary duplication of arguments already raised by WCA, BellSouth herein incorporates by reference Sections II (A), (B) and (C) of the WCA Petition and the Engineering Statements of T. Lauriston Hardin submitted with the WCA Petition and with WCA's Reply to be filed on March 25, 1997. Robert A. Saunders, Director of Wireless Planning for BellSouth Interactive Media Services, Inc., is a member of WCA's Engineering Subcommittee, which participated in the drafting of Mr. Hardin's Engineering Statements.

On January 30, 1997 - almost three weeks before the Commission adopted and released its *Report and Order* in this proceeding (the "*WCS Order*") - BellSouth put evidence into the record demonstrating that blanketing interference will result from high power WCS signals in close proximity to MDS/ITFS receivers.<sup>3/</sup> In particular, BellSouth established that the Commission should restrict WCS operations to 20 watts EIRP absent the consent of potentially impacted MDS and ITFS licensees. BellSouth's analysis is supported and supplemented by the Engineering Statement of T. Lauriston Hardin submitted with the WCA Petition (the "Hardin Statement"). *Not a single party who filed comments and/or reply comments in this proceeding has disputed the information set forth in the BellSouth Statement or the Hardin Statement or otherwise disputed that WCS operations at greater than 20 watts will cause harmful interference to MDS/ITFS licensees.*

In fact, of the numerous filings the Commission has received in response to the WCA Petition, all but one were submitted on behalf of CAI Wireless, Inc. and a large number of ITFS licensees, each of whom strongly support WCA's request for a 20 watt power limit for WCS.<sup>4/</sup>

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<sup>3/</sup> See *Ex Parte* Statement of BellSouth Corporation, GN Docket No. 96-228 (filed Jan. 30, 1997) [hereinafter cited as the "BellSouth Statement"].

<sup>4/</sup> See, Comments of Alliance for Higher Education, *et al.*, in Support of WCAI Petition for Expedited Reconsideration, GN Docket No. 96-228 (filed Mar. 21, 1997) [the "Alliance Comments"]; Comments of The Archdiocese of Los Angeles Education and Welfare Corporation, GN Docket No. 96-228 (filed Mar. 21, 1997) [the "ALAE Comments"]; Statement of Mississippi EdNet Institute, Inc. in Support of Petition for Expedited Reconsideration, GN Docket No. 96-228 (filed Mar. 21, 1997) [the "EdNet Comments"]; Comments of George Mason University Instructional Foundation, Inc., GN Docket No. 96-228 (filed Mar. 21, 1997) [the "GMU Comments"].



The commenting ITFS licensees provide a wide variety of educational services to significant areas in Arizona, California, Florida, Minnesota, Mississippi, Missouri, North Carolina, Ohio, Oregon, South Carolina, Virginia, Wisconsin and Wyoming. The significant participation of the ITFS community illustrates that the Commission's refusal to adopt a 20 watt power limitation for WCS will have profound adverse effects on the ITFS service and contradicts the Commission's historical policy of protecting ITFS operations and preserving the critical relationship between wireless cable operators and ITFS licensees.<sup>54</sup> For the reasons set forth in the WCA Petition and in the CAI Wireless and ITFS comments, BellSouth submits that there is no policy rationale for the Commission to sacrifice the benefits of the ITFS service to promote flexible use of WCS spectrum.

Hence, for the reasons set forth herein and in the WCA Petition, the public interest demands that the Commission correct its error and adopt a 20 watt EIRP power limitation for WCS licensees as initially proposed by BellSouth, unless the WCS licensee obtains an interference consent agreement from affected MDS and ITFS licensees. To facilitate such negotiations, BellSouth further recommends that the Commission require WCS licensees in all cases to provide potentially affected MDS and ITFS licensees with no less than sixty (60) days advance written notice of where WCS towers will be located and the power requirements of their proposed WCS services. This will give incumbent MDS and ITFS licensees sufficient time to assess potential WCS interference, identify all relevant technical issues and negotiate mutually

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<sup>54</sup> See, e.g., Alliance Comments at 2-3; ALAE Comments at 3-4; EdNet Comments at 2-3; GMU Comments at 1.

beneficial consent agreements with WCS licensees prior to the launch of WCS in any given market.

Furthermore, WCA's lone opponent, Metricom, did not file comments or reply comments in this proceeding. Instead, Metricom notes that it is "a pioneer in the development of state-of-the-art, Part 15, unlicensed spread spectrum systems operating in the congested 902-928 MHz frequency band."<sup>6/</sup> Metricom fails to mention that it uses its unlicensed (*i.e.*, unauctioned) spectrum to provide wireless Internet access service (known as "Ricochet"), which will compete directly with the wireless Internet access services soon to be provided by wireless cable operators.<sup>7/</sup> By advocating that the Commission deny WCA's Petition, Metricom in effect is asking the Commission to maintain WCS rules that will interfere with the wireless cable

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<sup>6/</sup> Metricom Opposition at 1-2.

<sup>7/</sup> The Commission is well aware of Metricom's wireless Internet access service. See *Remarks of Michelle Farquhar, Chief, Wireless Telecommunications Bureau*, "Customer Care in the New Regulatory Environment," 1996 FCC LEXIS 3331, at 5 (June 14, 1996). It is also a matter of public record that wireless cable operators are making substantial investments in researching and developing wireless Internet access services, and have recently filed a Petition for Rulemaking with the Commission proposing new regulations that would permit two-way use of MDS and ITFS frequencies for this purpose. See, *e.g.*, Barthold, "High-Speed Data Dominates Wireless Meeting," *Cable World*, at 58 (Feb. 24, 1997); "Winter Meeting: More and Better Access," *Wireless Cable Investor*, at 4-6 (Feb. 26, 1997); Breznick and Vittore, "Wireless Internet Access Gaining Steam," *Cable World*, at 26 (Oct. 31, 1996); "American Telecasting Teams with MCI," *Cable World*, at 2 (Oct. 31, 1996); "CAI Wireless High-Speed Access News," *Wireless Cable Investor*, at 2 (Oct. 31, 1996); "Wireless News," *Cable World*, at 30 (Oct. 28, 1996) ("CAI Wireless Inc. asked the FCC to approve two-way communications using its wireless cable channels in Hartford, Conn. Approval would let CAI use channels for high-speed Internet access . . ."). See also Petition for Rulemaking re: In the Matter of Amendment of Parts 21 and 74 to Enhance the Ability of Multipoint Distribution Service and Instructional Fixed Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions, File No. RM-\_\_\_\_\_ (filed Mar. 14, 1997).

industry's provision of wireless Internet access service via auctioned spectrum (for which wireless cable operators paid over \$200,000,000) for the benefit of Metricom's competing service over spectrum for which Metricom paid nothing. Furthermore, even if the Commission were to put Metricom's motives aside, BellSouth demonstrates herein that all of Metricom's procedural and substantive arguments are groundless. Accordingly, BellSouth once again urges the Commission to impose a 20 watt power limitation on WCS immediately unless the WCS licensee obtains an interference consent agreement from affected MDS/ITFS licensees.

## II. DISCUSSION.

### A. *The Commission's Refusal to Impose a Power Limitation on WCS Licensees is Based on Incorrect Assumptions.*

Metricom asserts that WCA's Petition reiterates arguments in the BellSouth Statement that the Commission rejected in the *WCS Order*.<sup>8/</sup> To the contrary, WCA demonstrated why the Commission's analysis of the BellSouth Statement is incorrect and why the Commission's resolution of the WCS interference problem in the *WCS Order* will not protect MDS and ITFS licensees as much as the Commission appears to believe.

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<sup>8/</sup> Metricom Opposition at 2-3. Metricom also relies on the Commission's assertion that "[N]o potential WCS applicants have had an opportunity to respond to [BellSouth's] comments." Id. at 2-3, *citing WCS Order* at ¶ 157. As pointed out by WCA, BellSouth made its *ex parte* submission on January 30, 1997 -- almost three weeks before the *WCS Order* was released. Moreover, the Commission announced BellSouth's *ex parte* filing via *Public Notice* released February 7, 1997. See *Public Notice, "Ex Parte Presentations and Post-Reply Comment Period Filings in Non-Restricted Proceedings,"* (rel. Feb. 7, 1997). Thus interested parties had a full opportunity to comment on the matters raised in the BellSouth Statement. See WCA Petition at 9 n.17.

The *WCS Order* is wrongly premised on an assumption that MDS and ITFS “downconverters receive all signals throughout the entire 2.1-2.7 GHz band . . .”<sup>9/</sup> Many downconverters are designed solely to receive the MDS and ITFS signals in the 2500-2690 MHz range, while others (referred to as “dual band block downconverters”) are designed to receive both the MDS channels at 2150-2162 MHz and the MDS and ITFS channels at 2500-2690 MHz. As pointed out in the WCA Petition and in the Hardin Statement, regardless of whether downconverters operate in the 2.1 GHz and 2.5 GHz bands or only the 2.5 GHz band, interference filtering has not been an issue with previously authorized users of the 2305-2320 and 2345-2360 MHz bands that are being reallocated to WCS.<sup>10/</sup> The problem arises (and will arise for single band and dual band downconverters alike) not because the installed base of downconverters lack filtering between 2162 MHz and 2500 MHz, *but because the Commission is authorizing WCS operations without imposing any limit on power.*

Equally flawed is the Commission’s assumption that the potential for blanketing interference from WCS operations will be remedied as the wireless cable industry transitions to digital technology. A “digital ready” downconverter is equipped with a local oscillator that has improved phase noise performance; this improvement has no impact on the downconverter’s sensitivity to frequency overload or blanketing interference from WCS signals.<sup>11/</sup> The use of

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<sup>9/</sup> *Id.*

<sup>10/</sup> WCA Petition at 10-11; Hardin Statement at 3.

<sup>11/</sup> WCA Petition at 11-12; Hardin Statement at 1-2 and at Attachment 1 (Letter from Pacific Monolithics, or the “Pacific Letter”) at 2. Indeed, California Amplifier already is supplying digital

digital technology thus has no bearing on BellSouth's or any other wireless cable operator's ability to protect against blanketing interference from WCS licensees.

Most importantly, however, the WCA Petition demonstrates unequivocally that *it is impossible for equipment manufacturers to design downconverters that will eliminate blanketing interference from WCS where there are no power limitations on WCS licensees.*<sup>12/</sup> The only way equipment manufacturers can design downconverters that will protect against WCS interference is for the Commission to impose a specific power limitation on WCS licensees.<sup>13/</sup>

What little Metricom has to say about the substance of WCA's technical showing is meritless. Citing the BellSouth Statement, WCA argued *by way of example* that harmful WCS interference to MDS and/or ITFS licensees would occur where a WCS transmitter located within 300 feet of an MDS or ITFS downconverter transmits with an EIRP of greater than 82 watts.<sup>14/</sup> At no point did WCA represent that this was the only possible distance/EIRP combination that would create harmful WCS interference; indeed, given that the Commission has adopted no

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downconverters to the wireless cable industry and has concluded unequivocally that these downconverters will be subject to harmful WCS interference if they are located closer than 300 feet to a WCS transmitter operating with an EIRP of 20 watts. Hardin Statement at Attachment 2 (Letter from California Amplifier or the "CalAmp Letter") at 1.

<sup>12/</sup> WCA Petition at 12-13.

<sup>13/</sup> The Commission also is mistaken in assuming the potential for interference to MDS/ITFS licensees somehow is dependent on the type and timing of services WCS licensees will provide in the future. It is the absence of any power limitation whatsoever on WCS licensees that raises the specter of blanketing interference to MDS and ITFS licensees, regardless of how and when WCS spectrum is used. See Hardin Statement at 2-3; Pacific Letter at 1.

<sup>14/</sup> Hardin Statement at 2-3.

power limit for WCS, there are an *infinite* number of distance/EIRP combinations that could create such interference, of which the 300 feet/82 watt example cited by WCA is just one. For example, the Engineering Statement submitted with the supporting comments of EdNet notes that the area of harmful WCS interference may vary depending upon the amount of power transmitted by the WCS licensee.<sup>15/</sup>

Nowhere in its Opposition does Metricom dispute the technical findings set forth in the BellSouth Statement or the WCA Petition. Instead, Metricom inexplicably assumes that the 300 feet/82 watt example cited by WCA is the *only* possible distance/power combination that will produce harmful WCS interference. From this Metricom argues that such interference will affect “only a very small percentage of all the downconverters being operated in any particular geographic area,” on the theory that “the likelihood of ... WCS fixed transmitters being located a mere 300 feet away from a particular downconverter . . . is minimal at best.”<sup>16/</sup> Metricom’s argument here is bereft of any factual support and thus is purely speculative; indeed, as noted in the Engineering Statement submitted in support of WCA’s Reply to Metricom’s Opposition (the “Hardin Reply Statement”), given the flexible usage of WCS spectrum permitted under the *WCS Order*, it is impossible to make broad assumptions about the future density of WCS

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<sup>15/</sup> See, e.g., EdNet Comments, Exhibit E (Engineering Statement of Robert Gehman, Jr.) [computing the “interference area” around a WCS base station using various EIRPs for the WCS interfering station].

<sup>16/</sup> Metricom Opposition at 4

transmit sites.<sup>17/</sup> Moreover, Metricom appears to assume that WCS will be a point-to-point service only and that WCS transmitters therefore will be placed to avoid interference to existing MDS and ITFS licensees in all cases.<sup>18/</sup> Putting aside the fact that Metricom again offers no support for this theory, the Commission must remember that it has imposed *no* restrictions on the services WCS licensees may provide or on how WCS systems may be configured from market to market.<sup>19/</sup> Thus there is simply no basis for Metricom to assume that WCS will be a point-to-point service in every instance or that WCS transmitters otherwise will always be sufficiently far from MDS/ITFS downconverters to avoid interfering with wireless cable or ITFS service.

Metricom also attempts to obfuscate the WCS interference issue by suggesting that WCS will be analogous to existing high-power "ISM" (Industrial, Scientific and Medical) and amateur radio operations in the 2.3 and 2.4 MHz band and thus will not create any interference that wireless cable operators and ITFS licensees are not subject to already.<sup>20/</sup> Metricom fails to point

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<sup>17/</sup> Hardin Reply Statement at 1.

<sup>18/</sup> Metricom Opposition at 4.

<sup>19/</sup> See *WCS Order* at ¶ 25 ("We conclude that under the totality of the circumstances presented, the 2305-2320 and 2345-2360 MHz bands will be allocated on a primary basis for fixed, mobile, radio telephone, and broadcasting-satellite (sound) services without further designations. . . . WCS licensees themselves will determine the specific services they will provide within their assigned spectrum and geographic areas."). The indeterminate nature of the WCS service thus provides additional support for BellSouth's proposal to eliminate unnecessary uncertainty in the marketplace by requiring WCS licensees to give 60 days prior notice to potentially affected MDS/ITFS licensees as to the location of WCS towers and WCS transmitting power.

<sup>20/</sup> Metricom Opposition at 5.

out that under the Commission's Rules ISM devices may not cause interference to licensees in other services. Accordingly, it is incumbent upon ISM operators to use equipment which does not cause interference, regardless of the power level employed.<sup>21/</sup> Moreover, the ISM equipment at issue consists primarily of home microwave ovens whose emissions are self-contained and thus result in very little signal leakage into the surrounding environment.<sup>22/</sup> Moreover, amateur radio operators typically operate with relatively low power. Since the number of amateur radio operators causing harmful interference is very small, no sensible analogy can be drawn between the potentially devastating interference caused by unlimited power WCS operations and the sporadic interference caused to MDS and ITFS licensees by amateur radio facilities.<sup>23/</sup>

*B. The Commission's Statement That It Will Examine WCS Interference on a Post Hoc Basis Does Not Provide Adequate Protection For MDS/ITFS Licensees.*

Historically, the Commission has consistently expressed a substantial interest in promoting wireless cable service and providing interference protection for the benefit of wireless cable subscribers.<sup>24/</sup> In the *WCS Order*, however, the Commission appears to have suddenly reversed itself, adopting no WCS power limitations even though BellSouth had already

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<sup>21/</sup> Hardin Reply Statement at 2.

<sup>22/</sup> Id.

<sup>23/</sup> Hardin Reply Statement at 2.

<sup>24/</sup> See WCA Petition at 15 n.29 & 30.



presented uncontroverted evidence indicating that such limitations are necessary to avoid harmful interference to MDS and ITFS licensees. Instead, the Commission simply states that “we may in the future, based on actual WCS operations, find it necessary to adopt an interference rule for WCS.”<sup>25/</sup> For the reasons set forth below and in the WCA Petition, the Commission’s *post hoc* approach to WCS interference is not an acceptable solution.

The Commission has recognized that the price of entry into the multichannel video distribution marketplace may include significant investments or “sunk costs” that cannot be redeployed to another use if their initial use proves unprofitable.<sup>26/</sup> BellSouth’s experience with wireless cable is a case in point: to date the company has invested or has committed to invest in excess of \$100 million to acquire the channel rights necessary to provide competitive, digital wireless cable services in New Orleans, Atlanta and Miami. BellSouth has also committed to pay between \$67.9 million and \$103.2 million to acquire American Telecasting’s wireless cable properties. These investments do not include the significant compensation BellSouth must pay ITFS licensees in exchange for the right to lease excess capacity on ITFS channels, nor does it include the millions of dollars BellSouth has spent or will spend on the transmission and reception equipment necessary to develop digital wireless cable systems and distance learning infrastructures for local ITFS licensees.

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<sup>25/</sup> *WCS Order* at ¶ 157.

<sup>26/</sup> *In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, CS Docket No. 96-133, FCC 96-496 at ¶ 127 (rel. January 2, 1997) [the “1996 Competition Report”].

Equally relevant is the fact that BellSouth's wireless cable systems will compete against very large MSOs that are poised to offer digital video services over their cable plant. In Miami, for example, BellSouth's wireless cable system will compete directly with the cable television system owned by the nation's largest MSO, Tele-Communications, Inc. ("TCI"), which recently rolled out digital cable service in several markets and intends to do so in a total of 40 markets passing five million homes by the end of 1997.<sup>27/</sup> In addition, BellSouth will compete in all markets against DBS providers offering well over 100 channels of digitally compressed video programming, including possibly a 500-channel offering of the EchoStar/News Corp. DBS joint venture, which has announced that it will provide direct-to-home satellite distribution of local signals within their own markets.<sup>28/</sup>

Against this backdrop, BellSouth takes little solace in the Commission's decision to address WCS interference *after* WCS licensees have actually commenced operations and prevented BellSouth's wireless cable subscribers from receiving a viewable signal. The indisputable fact is that BellSouth's wireless cable subscribers will not tolerate interference while the Commission conducts a rulemaking proceeding to address the problem -- instead they will switch to incumbent cable operators or DBS operators offering similar services free of WCS interference. Such a result not only would be contrary to the Commission's long-standing efforts to promote competition in the multichannel video marketplace, it also would be a breach of faith

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<sup>27/</sup> Mitchell, "TCI's Digital Express," *Cable World*, at 1 (February 10, 1997).

<sup>28/</sup> See, e.g., Mitchell, "High-Powered Play: EchoStar, ASkyB Join Forces," *Cable World*, at 1 (March 3, 1997).

with BellSouth and others who have made significant investments in bringing about competition to the public through wireless cable.<sup>29/</sup> Furthermore, by failing to impose a power limitation on WCS licensees that sufficiently protects MDS and ITFS licensees, the Commission will defeat the broader Congressional objective of promoting regulatory parity between wireless services.<sup>30/</sup>

Finally, the Commission must acknowledge the potentially devastating effects of its decision on the numerous ITFS licensees who have filed in support of the WCA petition. The distance learning operations of these entities will depend heavily on the success of wireless cable systems. Indeed, the Commission already has acknowledged the interdependent relationship between wireless cable systems and the ITFS service, and the critical role wireless cable operators play in supporting the ITFS service through lease payments to ITFS licensees.<sup>31/</sup> Simply put, any interference with BellSouth's wireless cable service will necessarily diminish BellSouth's ability to help sustain local ITFS operations. Given the Commission's well established policy of developing the ITFS service to its fullest capabilities, BellSouth submits that there is no sensible reason for the Commission to sacrifice the integrity of the ITFS service on the altar of "flexible use."

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<sup>29/</sup> The Commission cannot ignore, for example, that winning bids in the Commission's recent auction of MDS Basic Trading Area authorizations totaled over \$200,000,000. These investments will be at risk if the Commission fails to take the action requested in this Petition. WCA submits that there is no policy justification for such a result. *See Public Notice, "Winning Bidders in the Auction of Authorizations to Provide Multipoint Distribution Service in 493 Basic Trading Areas,"* at 1 (rel. March 29, 1996)

<sup>30/</sup> WCA Petition at 18-19 n.39.

<sup>31/</sup> *See* WCA Petition at 16-18.

C. *There Remains No Basis in the Record for the Commission to Adopt a WCS Power Limit of Greater Than 20 Watts.*

As pointed out in the WCA Petition, there is no evidence before the Commission in this proceeding which suggests that a 20 watt power limitation for WCS licensees will decrease the value of WCS spectrum or preclude WCS licensees from deploying their facilities in the most optimal manner.<sup>32/</sup> In response, Metricom speculates that WCS will be “dead on arrival” if the Commission does not authorize WCS licensees to operate with “sufficient” EIRP.<sup>33/</sup> Significantly, Metricom does not offer any evidence suggesting that WCS licensees cannot offer a viable service with a 20 watt power limitation.<sup>34/</sup> Of even greater significance is the fact that to date no equipment manufacturer or potential bidder in the WCS auction has disputed the sufficiency of the 20 watt power limit. Hence, there continues to be no basis in the record for the Commission not to adopt WCA’s proposed 20 watt power limitation for WCS licensees.

BellSouth recognizes, however, that it may be desirable to give WCS licensees the flexibility to transmit at higher power levels where the WCS licensee and affected MDS and

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<sup>32/</sup> WCA Petition at 18.

<sup>33/</sup> Metricom Opposition at 6.

<sup>34/</sup> Indeed, it appears from Metricom’s prior filings with the Commission that Metricom firmly supports power limits where protection of *Metricom’s* operations is at issue. For example Metricom is a member of the Millimeter Wave Communications Working Group, which recently submitted a proposal for spectrum etiquette in the 59-64 GHz band. *See*, Report and Recommendations of the Millimeter Wave Communications Working Group to the Federal Communications Commission, ET Docket No. 94-124 (filed Dec. 13, 1996) [the “MWCWG Paper”]. Therein, the Group recommended that the Commission limit the peak power from any transmitter in the 59-64 MHz band to 500 mW. MWCWG Report at 3. In this context, Metricom’s assertion that *no* power limits are appropriate for WCS must be viewed with some suspicion.

ITFS licensees are able to negotiate arrangements that will prevent harmful WCS interference. Accordingly, as already suggested in the BellSouth Statement and in the supporting comments filed by George Mason University, BellSouth recommends that the Commission authorize a WCS licensee to operate at greater than 20 watts EIRP only where the WCS licensee obtains prior consent from the affected MDS or ITFS licensees. Specifically, the Commission should permit WCS and MDS/ITFS licensees to negotiate appropriate compensation agreements that will reimburse MDS/ITFS licensees for the additional equipment and labor costs associated with eliminating interference caused by WCS operation at more than 20 watts.<sup>35/</sup> This type of consent/reimbursement process would be consistent with the Commission's broader policy of requiring a new service provider to absorb any costs of eliminating interference to incumbent licensees in other services, and is the most practical method of allowing WCS licensees to operate at greater power without disrupting the operations of wireless cable systems and distance learning providers.<sup>36/</sup>

### III. CONCLUSION.

BellSouth and WCA have already demonstrated that the Commission can sufficiently protect MDS and ITFS licensees against harmful WCS interference simply by limiting the

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<sup>35/</sup> It is unclear at the present time how WCS systems will be configured from market to market, and how much power they will emit in any given situation. Accordingly, BellSouth submits that it is premature to determine the severity of the interference that will be caused by WCS operations, and thus it would be premature for the Commission to place any limitations on the compensation which WCS licensees must pay to MDS/ITFS licensees to eliminate harmful WCS interference.

<sup>36/</sup> See, e.g., *Broadcast Corp. Of Georgia*, 96 F.C.C. 2d 901, 906 (1984).

authorized power of WCS licensees to 20 watts EIRP unless the WCS licensee obtains an interference consent agreement from the affected MDS and ITFS licensees. All evidence before the Commission on this issue indicates that the Commission's refusal to adopt the requested power limitation represents a dramatic, unexplained reversal of policy that will cause damaging interference to wireless cable operators and ITFS service providers, to the unquestionable detriment of consumers who use wireless cable and/or ITFS services.

Accordingly, the choice before the Commission in this matter continues to be very straightforward: it can take the necessary steps to provide MDS and ITFS licensees with sufficient interference protection against WCS licensees, or it can give WCS licensees unbounded authority to operate at high power and thereby cause interference that will injure the wireless cable industry and ITFS service providers as well as members of the public who use, or may in the future use, wireless cable and/or ITFS service. For the reasons set forth in the BellSouth Statement, the WCA Petition and the supporting comments filed with respect thereto, every relevant technical, legal and public interest consideration dictates that the Commission do the former, and nothing in Metricom's Opposition supports any other conclusion. BellSouth therefore requests that the Commission modify its Rules adopted in the *WCS Order* to impose

a 20 watt EIRP power limitation on WCS licensees unless the WCS licensee obtains prior consent from affected MDS/ITFS licensees to operate at higher power. To facilitate negotiations between WCS and MDS/ITFS licensees, BellSouth further requests that the Commission require WCS licensees to provide potentially affected MDS and ITFS licensees with no less than 60 days advance written notice of where WCS towers will be located and the power requirements of their proposed operations. Finally, to ensure fairness to potential WCS bidders, BellSouth requests that the Commission resolve the issues raised herein prior to the commencement of its upcoming WCS auction.

Respectfully submitted,

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March 25, 1997

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I, Stephen R. Mead, hereby certify that on this 25th day of March, 1997, I caused copies of the foregoing Reply of BellSouth Corporation and BellSouth Wireless Cable, Inc. to be served by hand delivery, on the following:

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